



NOTES:

1. THIS IS A ULTRA - HIGH - VACUUM ASSEMBLY (UHV) KEEP THE UHV PARTS CLEAN DURING ASSEMBLY, AND WRAP UP FOR PACKING WITH ALUMINUM FOIL
2. THE ASSEMBLY SHALL BE LEAK TESTED USING A MASS SPECTROMETER WITH MINIMUM SENSITIVITY FOR HELIUM OF 2X 10<sup>-10</sup> STANDARD CC/SEC PER LEAK METER DIVISION, SUCH AS:

ALCATEL ASM-110TCL  
VARIAN NCR 925 OR 936  
VEECO MS-9, MS-90 OR MS-18  
Du PONT CEC 24-120B

CALIBRATION OF THE LEAK DETECTOR SENSITIVITY SHALL BE PERFORMED JUST PRIOR TO TESTING.

FINAL TEST WILL CONSIST OF SURROUNDING THE ASSEMBLY (BAGGING) WITH HELIUM. THE ASSEMBLY WILL BE REJECTED IF A 2% DEFLECTION IN THE MOST SENSITIVE RANGE OF THE LEAK DETECTOR IS SENSED WITHIN 1 MIN.

3. DIMENSIONS IN [ ] ARE MILLIMETERS AND FOR REF. ONLY
4. TORQUE #4 - 40 SET SCREWS TO 2 IN.-LBS. BY PAIRS IN THE OPPOSITE DIRECTION

\* MULTIPLE PART

10		.262 I.D. X .109 THK. LOCK WASHER	SST	10
9		1/4 - 20 X 3/4" LG. SOC. HD. SCREW	SST/SILVER PLATE	10
8		1" - 8 UNC 2B JAM NUT	SST	8
7		1" - 8 UNC 2B HEX NUT	SST	4
6		1" - 8 UNC 2B SPHERICAL NUT & WASHER	SST	8
5		1" - 8 UNC 2A X 9" LG THREADED NUT	SST	4
4	A4- 710000- 00	A4- 71 HEAVY LOAD PNEU. ACTUATOR ASSEMBLY		1
3	P4- 310300- 00	P4- 30 SUPPORT PLATFORM	SST	1
2	P4- 310200- 00	P4- 30 CARRIAGE ASSEMBLY	SST	1
1	P4- 310100- 00	P4- 30 UNDULATOR STOP ASSEMBLY		1
ITEM	DWG/PART NUMBER	NOMENCLATURE OR DESCRIPTION	MATERIAL / SPEC	QTY

UNLESS OTHERWISE SPECIFIED: ALL DIMENSIONS ARE IN INCHES TOLERANCES: DECIMALS: .XX - .01 [0.25] XXX - .005 [0.13] ANGULAR: X - 1 [2.5] XX - .01 [0.25] XXX - .005 [0.13] SURFACE ROUGHNESS: 125 REMOVE ALL BURRS AND BREAK SHARP EDGES .03 MAX. SURFACE TEXTURE TO BE IN ACCORDANCE WITH LATEST ANSI B46.1 DIMENSIONING & TOLERANCING IN ACCORDANCE WITH LATEST ANSI Y14.5		LOG NUMBER: P4310000- 00 THIS DRAWING IS THE PROPERTY OF: ARGONNE NATIONAL LABORATORY DRAWN BY: MUSCIA DATE: 10/19/98 CHECKED BY: J. CHANG DATE: 10/21/98 DESIGNER: CHANG/MUSCIA DATE: 10/19/98 RESPONSIBLE ENGINEER: J. CHANG DATE: 10/21/98 APPROVED/RELEASED: [Signature] MATERIAL: SEE PARTS LIST		TITLE: ADVANCED PHOTON SOURCE P4- 30 INTEGRAL SHUTTER FOR 4- ID- A UNDULATOR STOP ASSEMBLY SCALE: 1/4 SHEET: 1 of 1 DRAWING NUMBER: P4- 310000- 00	
---	--	--	--	--	--